IN THE CLAIMS

The pending claims are reproduced herein for the Examiner's convenience.

1. (Original) A microelectronic device comprising:

a package core having an opening therein;

a microelectronic die located within the opening of said package core; and

a fiber reinforced encapsulation material within the opening of said package core to hold said microelectronic die within said package core, said fiber reinforced encapsulation material including a polymeric resin having a fibrous filler material.

2. (Original) The microelectronic device of claim 1, wherein:

said fibrous filler material includes individual fibers having a length between 1 micrometer and 40 micrometers.

3. (Original) The microelectronic device of claim 1, wherein:

said fibrous filler material includes individual fibers having a length to width ratio that is no less than 5.

4. (Withdrawn) The microelectronic device of claim 1, wherein:

said fibrous filler material includes glass fibers.

5. (Original) The microelectronic device of claim 1, wherein:

said fibrous filler material includes carbon fibers.

6. (Withdrawn) The microelectronic device of claim 1, wherein:

said fibrous filler material includes Kevlar® fibers.

7. (Withdrawn) The microelectronic device of claim 1, wherein:
said fibrous filler material includes ceramic fibers.

8. (Withdrawn) The microelectronic device of claim 1, wherein:
said fibrous filler material includes metal fibers.

9. (Original) The microelectronic device of claim 1, wherein:
said polymeric resin includes epoxy.

10. (Original) The microelectronic device of claim 1, wherein:
said polymeric resin includes plastic.

11. (Original) The microelectronic device of claim 1, comprising:
at least one metallization layer built up over said package core, said at least one metallization layer being conductively coupled to bond pads on a surface of said microelectronic die.

12. (Withdrawn) A microelectronic device comprising:
a package substrate;
a microelectronic die mechanically coupled to said package substrate, said microelectronic die having a plurality of electrical contacts that are conductively coupled to contacts on said package substrate; and
a fiber reinforced encapsulation material mechanically coupled to said microelectronic die to provide structural support for said microelectronic die, said fiber reinforced encapsulation material including a polymeric resin having a fibrous filler material.

13. (Withdrawn) The microelectronic device of claim 12, wherein:
said fiber reinforced encapsulation material forms a fillet between said microelectronic die and said package substrate.

14. (Withdrawn) The microelectronic device of claim 12, wherein:

said fiber reinforced encapsulation material forms a globule covering said microelectronic die.

15. (Withdrawn) The microelectronic device of claim 12, wherein:

said package substrate includes a flexible circuit board.

16. (Withdrawn) The microelectronic device of claim 15, wherein:

said fiber reinforced encapsulation material fills a region between said microelectronic die and said flexible circuit board.

17. (Withdrawn) The microelectronic device of claim 12, wherein:

said fibrous filler material includes individual fibers having a length between 1 micrometer and 40 micrometers and a length to width ratio that is no less than 5.

Claims 18-24 (Canceled)

25. (Withdrawn) A microelectronic device comprising:

a flexible circuit board including a first side and a second side;

a microelectronic die attached to the first side;

a compliant buffer on the first side of the flexible circuit board, wherein the compliant buffer is between the die and the flexible circuit board; and

a fiber reinforced encapsulation material to hold the microelectronic die to the flexible circuit board.

26. (Withdrawn) The microelectronic device according to claim 25, further including:

an opening in the flexible circuit board;

a bond pad on the microelectronic die; and

a bond ribbon that extends from the bond pad, through the opening, to the second side.

27. (Withdrawn) The microelectronic device according to claim 25, further including:
an opening in the flexible circuit board;
a bond pad on the microelectronic die;
a bond ribbon that extends from the bond pad, through the opening, to the second side; and
a contact structure attached on the second side.

28. (Withdrawn) The microelectronic device according to claim 25, further including:
an opening in the flexible circuit board;
a bond pad on the microelectronic die;
a bond ribbon that extends from the bond pad, through the opening, to the second side; and
a solder ball contact structure attached on the second side.

29. (Withdrawn) The microelectronic device according to claim 25, wherein the fiber reinforced encapsulation material includes a fiber selected from glass, carbon, Kevlar®, ceramic, and metal.

30. (Withdrawn) The microelectronic device according to claim 25, wherein the fiber reinforced encapsulation material includes a fiber selected from glass, carbon, Kevlar®, ceramic, and metal, and wherein the fiber has a length between 5 and 40 micrometers and a diameter between 0.5 and 5 micrometers.

31. (Withdrawn) The microelectronic device according to claim 25, wherein the fiber reinforced encapsulation material includes a polymeric resin selected from epoxy and plastic.